



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,325	04/18/2001	Barclay J. Tullis	2001004	8577

7590 06/10/2002  
BARCLAY J. TULLIS  
1795 GUINDA ST.  
PALO ALTO, CA 94303

EXAMINER

PATEL, TULSIDAS C

ART UNIT	PAPER NUMBER
----------	--------------

2839

DATE MAILED: 06/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/837,325

Applicant(s)

TULLIS ET AL.

Examiner

T. C. Patel

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 21-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-20, drawn to a multiple fiber optic apparatus, classified in class 385, subclass 137.
  - II. Claims 31-36, drawn to a method of manufacturing fiber optic apparatus, classified in class 156, subclass 158.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the method of manufacturing requires steps of polishing, removing, bonding, etc., which are not required for the article claims.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

Art Unit: 2839

5. During a telephone conversation with Barclay Tullis on May 28, 2002 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-20.

Affirmation of this election must be made by applicant in replying to this Office action.

Claims 21-36 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### *Specification*

1. The disclosure is objected to because of the following informalities:

The specification page 1, reference to a co-pending application. The Applicant is required to provide application number of that application. Also, on page 2, patent numbers 25,781,675 and 15,809,188 are in error, and should be changed to 5,781,188 and 5,809,188 respectively.

Applicant is required to review the specification and make necessary corrections.

Art Unit: 2839

*Claim Objections*

7. Claims 1-6, are objected to because of the following informalities:

Claim 1, line 4, recites 'a second array' which suggests that there is 'a first array' of optical fibers. Since there is no first array present, the recitation should be changed to -an array--.. Appropriate correction is required.

*Claim Rejections - 35 USC § 112*

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-6 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 8, recitation of 'may be' makes claim vague and indefinite. Also, in line 7, 'the common substrate' lacks proper antecedent basis.

*Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Art Unit: 2839

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 4-6, 10, 11, 15, 16, 18 and 20, are rejected under 35 U.S.C. § 102(b) as being anticipated by Shaw et al. (US 4,601,541).

Shaw et al. discloses a fiber optic coupler 10, comprising crystal substrate having first surface 17, a first array of groove 18 etched into the surface, an array of fibers 13 held in the grooves, wherein the fibers are held in the substrate forms a coupler. For claim 4, the substrate is disclosed to be silicon (column 3, line 23), for claims 5 and 6, the device is joiner and a coupler.

For claim 10, the polished area of the fiber is divided into two parts and both are associated with the substrate. The fibers are joined without any connector or splicing. For claim 11, portion of the substrate is considered substrate strip. For claims 15, 16, 18 and 20, the fibers, the substrates and bonding of fibers to the substrate are disclosed.

#### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2839

6. Claims 2, 3, 7-9, 12-14, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw et al. Shaw et al. (US 4,601,541) in view of Little (US 4,475,790) and Farries (US 5,778,119).

As discussed above, Shaw et al. satisfies the limitations of claims 1, 4-6, 10, 11, 15, 16, 18 and 20. However, Shaw et al. discloses the fibers in a single channel and also Shaw et al. does not disclose loop system Little, in figure 2 and 6, discloses substrate with multiple channels and also Farries, in figure 4, discloses looping of fiber for coupling at more than one location.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the substrate of Shaw et al. and provide several grooves or alternatively provide substrate in separate parts, as taught by Little and also provide loop of the fiber so that more than one fiber can be accommodated or alternatively single fiber can be looped, for coupling with multiple mating fibers as taught by Farries so that the device can have multiple outputs. For claims 2 and 3, the substrate of Shaw et al. is disclosed to be made of silica and can be etched along Miller planes.

7. The prior art made of record and not relied upon is considered pertinent to applicant's invention. Grubsky (US 6,360,038), Duerksen et al. (US 6,321,004) and Patterson et al. (US 6,356,684) all discloses various aspects of the invention including multiple coupling locations and looping.

Applicant also should consider these references in response to this office action.

Should issue arise concerning the rejection presented above, these references may be relied

Art Unit: 2839

upon in a subsequent action to support the lack of novelty or obviousness of claimed subject matter to one of ordinary skill in the art.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to T. C. Patel whose telephone number is (703) 308-1736. The examiner can normally be reached on 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (703) 308-3119. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1736.



T. C. Patel  
Primary Examiner  
Art Unit 2839

tcp  
June 5, 2002